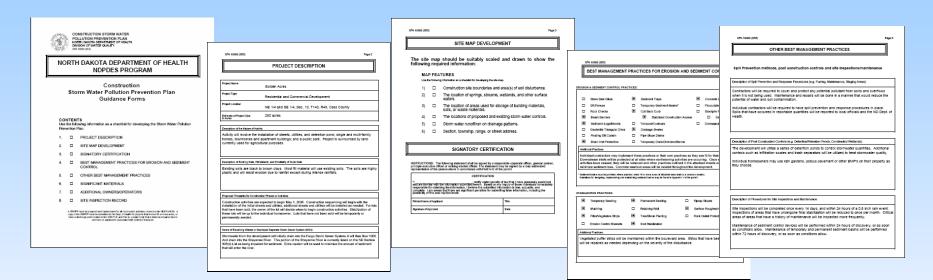
# Putting a Storm Water Pollution Prevention Plan Together

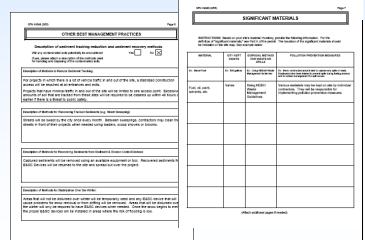
(What exactly is the Department Looking For?)

Dallas Grossman
Division of Water Quality
(701) 328-5242



# Storm Water Pollution Prevention Plan





					SPN	SFN 19083 (200) Page 9				
SFN 19088 (J.05) Page 0						SITE INSPECTION RECORD				
ADDITIONAL OWNERS/OPERATORS						Time & ide	Name of Inspector	Amount (inches), & Duration (hours) of Precipitation event	Observations and actions taken: Document incidents such as erosion, sediment accumulation, spills, SWPF-related maintenance, remediation, etc.	
BISTRUCTIONS: This section is provided to include additional concern and operation that may be designated by the person foreign performs extracted on a property for indicated professional to the additional concentration and active to the dates where foreign influences for them. The use of the section is therefore the property between the "things Constitution and the "things Constitution" and t						15 1:00am		0.6 in. 2 hrs	Sediment has accumulated in main detention pond. Does not need to be removed.	
									5 Inlet protection device have holes in them. Will repair as soon as possible.	
Signatory									City sweept streets on 5/13	
1 cettly under prestly of ther that I have personally resol understood, and accepted all terms and conditions of the Chris Nation President President and that that I represent the Pina accordingly. I an also feature and the ICPCIDS Contract Private for Chris Nation Contrages Associated with Contractions Artifly (ISCRISCASIO).						29 30a	DJG	Bi-Weekly Inspection	Wind has blown down sitt fence in the drainage ditch. Will be repaired within 24 hours.	
						12 100a	DXG	Bi-Weekly Inspection	All BMP's are OK	
d Name	Signature	794	Company Name	Date	81	15 90a	DJG	1.5 in 12 hours	Sediment has accumulate in main detention pond. Crew is cleaning it out now.	
					. [				Street gutter needs to be cleaned out. Sandbag installed next to properly line to keep future sediment close to site.	
					_					

#### Storm Water Pollution Prevention Plan

Construction Permit: Page 7; Part II.C

- > All construction projects must develop and implement a SWPPP!!!
- ➤ The objective of the SWPPP is to identify potential sources of sediment or other pollution from construction activity and ensure practices are used to reduce pollution.
- The SWPPP is not only a tool for the regulators to review, but for your employees to review if they have any questions.
- The Storm Water Pollution Prevention Plan is **not** the same as the Storm Water Management Plan.
- ➤ Sites that are less than 1 acre (e.g., office construction) and are covered under the permit may use a generic SWPPP template for each site, and Appendix 2 of the general construction permit.

- You do not have to use the forms provided by the state, but you must include all of the information found on the forms.
- Some project plans will have the SWPPP in the Erosion and Sediment Control Sheets.
- ➤ A different SWPPP must be developed for every construction project that disturbs 1 acre or more, or is part of a larger common plan of development.
- Information that usually stays the same:
  - Spill Prevention and Response
  - Procedures for Site Inspections and Maintenance
  - Methods to Reduce Sediment Tracking
  - Methods for Recovering Tracked Sediment
  - Methods for Recovering Sediment
  - Significant Materials

#### Contents of a SWPPP

- Project Description
- Site Map Development
- Signatory Certification
- Best Management Practices for Erosion and Sediment Control
- Other Best Management Practices
- Significant Materials
- Additional Owners and Operators
- Site Inspection Record

#### Name

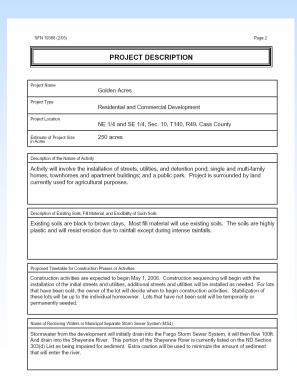
Name used to reference the project or site.

#### Type

 Residential, commercial, industrial, roadway, waterway, marina, dam, oil and gas, public works, etc...

#### Location

- The physical location of the site.
- Easy to locate
  - Township-Range-Section
  - Lot-Block-Division
  - Street Address
  - Latitude-Longitude
  - Roadway and Mile Marker
  - Directions



#### Project Size

- Total area of the project
- Given in Acres or square feet... NOT COST
- Must include all support activities associated with the project
  - Borrow and fill
  - Portable concrete or asphalt batch plants
  - Onsite equipment staging areas
  - Material storage areas
  - Excavated material disposal areas
- For development, residential, commercial, and industrial areas, the entire property or platted area should be included along with the disturbed area

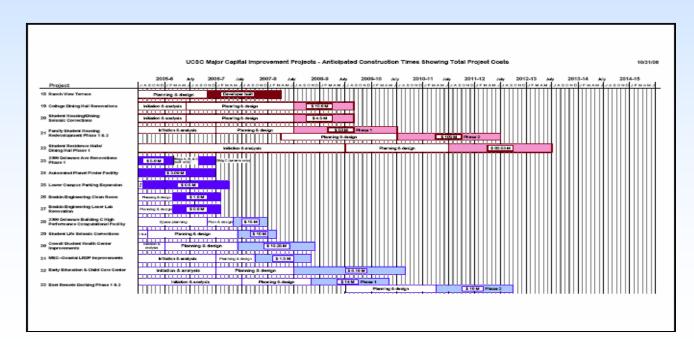
- Nature of Activity
  - Describe the nature of all activities being performed on site
    - Type of structure being constructed
    - Above and underground utilities
    - Paving
    - Mill and overlay
    - Reconstruction
    - Demolition
    - Etc....



- Existing Soils, Fill Material, and Erodibility of Such Soils
  - Description of the soils that will be encountered
  - Soil classification, or
  - Generic soil type
    - Silt, sand, clay, gravel, etc...
  - Erodibility includes the susceptibility of the soil to erosion by
    - Water and wind
    - During wet and dry conditions



- Timetable for Construction Phases or Activities
  - Proposed start and end dates of all construction phases or activities.
  - Since these are proposed dates, they may change.
  - If phasing is conducted, the separate phases must be indicated, along with the amount of area being disturbed during each phase.



- Activity start and end dates include
  - Roadway projects
    - Earthmoving, utility, paving, and final stabilization
  - Building projects
    - Earthmoving, utility, building, paving, and final stabilization
  - Development projects
    - Earthmoving, roadway projects (and all associated roadway construction activities), transfer dates, and final stabilization
  - Public Works projects
    - Earthmoving, utility, building, paving, and final stabilization
  - Demolition projects
    - Demolition, utility removal, earthmoving, and associated reconstruction

- Name of Receiving Waters or Municipal Separate Storm Sewer System (MS4)
  - Describe the drainage path runoff takes as it leaves the site.
    - List the path up to the first named-waterbody, or wetland.
    - List all the municipal, county or state operated storm sewer(s) or drainage ditch(s) that are encountered along the way.



- Include whether or not the waterbody is:
  - Listed in the <u>ND Section 303(d)</u>
     <u>List of Water Needing Total</u>
     <u>Maximum Daily Loads</u>, or

 If a Total Maximum Daily Load (TMDL) has been allocated for the waterbody. North Dakota 2006 Integrated
Section 305(b) Water Quality Assessment Report
and
Section 303(d) List of Waters Needing
Total Maximum Daily Loads



Nutrient and Dissolved Oxygen TMDLs for Lake Hoskins in McIntosh County, North Dakota

Final: August 2006

Prepared for: USEPA Region 8 999 18th St. Suite 300 Denver. CO 80202

Prepared by: Jim Collins Jr. Environmental Scientis and

Environmental Administrator

ND Department of Health
Division of Water Quality
Gold Seal Center
918 East Boulevard Avenue, 4th Floo
Bismarck, ND 58501-1947



North Dakota Department of Health Division of Water Quality Submitted to EPA April 13, 2006



- If a waterbody is listed on the <u>303(d) List</u> as impaired due to sedimentation/siltation, then the *Distance to the Waterbody* must be included.
- If a TMDL allocation has been developed for the waterbody or the overall watershed, then
  - A list of the particular pollutants must be included, and
  - The SWPPP must be developed to satisfy Part I.B.5 of NDR10-0000.

#### NDR10-0000

#### PART I – PERMIT COVERAGE AND LIMITATIONS

#### B. Discharges Not Covered

5. Discharges to waters for which there is a total maximum daily load (TMDL) allocation for sediment and/or parameters associated with sediment transport are not covered unless you develop a SWPP plan that is consistent with the assumptions, allocations and requirements in the approved TMDL. If a specific numeric wasteload allocation has been established that would apply to the project's discharges, the permittee(s) must incorporate that allocation into its SWPP plan and implement necessary steps to meet that allocation.

# Example:

"The site drains to the Bismarck storm sewer and discharges into a tributary of Hay Creek. Hay Creek is listed as impaired for sediment on the 303 (d) list and is 1000 feet from the site.





#### Certification

#### The SWPPP shall be signed by a:

- Responsible Corporate Officer,
- General Partner,
- Principal Executive Officer,
- Ranking Elected Official, or
- Duly Authorized Representative of that Person



#### Certification

#### A person is a duly authorized representative only if:

- 1. The authorization is made in writing by a person described above and submitted to the Department; and
- 2. The authorization specifies either an individual or a position having responsibility for the overall operation or the regulated facility, such as a position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

#### Site Map

The site map shall be suitably scaled and drawn and shall show the following information:

- 1. Construction site boundaries and area(s) of soil disturbance
- 2. The location of springs, streams, wetlands, and other surface waters
- 3. The location of areas used for storage of building materials, soils, or waste materials
- 4. The locations of proposed and existing erosion and sediment controls and storm water conveyance systems (curb and gutter, storm sewer catch basins, drainage ditch, etc.)
- 5. Storm water runoff/run on drainage patterns
- 6. A physical location description of the site, such as Twp-Rng-Sec, street address, etc.

# Site Map



#### Site Map

The following must be documented on the site map whenever a change occurs.

- The removal, addition, or adjustment or any erosion and sediment control.
- Areas of the site that have been temporarily or permanently stabilized
- Areas of the site that have achieved final stabilization
- The date that storm sewer inlets and drainage ditches are connected and become live
- The date the change is made
- The initials of the individual responsible for the change.

# Best Management Practices for Erosion and Sediment Control (or BMPs for ESCs)

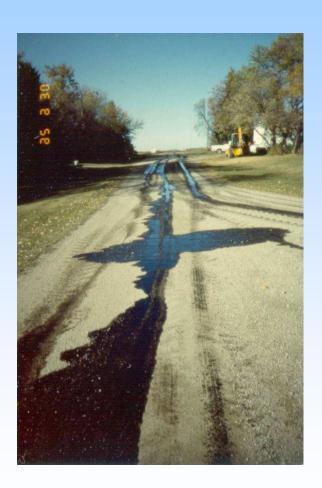
- Describe all BMPs that will be used on site
- Indicate the location and stage of installation of a BMP
- If a BMP is added or removed, it must be indicated in the SWPPP
- The list given in the guidance form does not include every type of BMP
- BMPs used on site that are not on the list must be included under the "ADDITIONAL PRACTICES" section





# Methods used for Handling and Disposing of Contaminated Soils

- Describe the plan of action for handling and disposing of contaminated soil, when encountered
- The description shall include:
  - Type of contamination
  - Disposal location
  - Method of removal
  - Method of transport



#### Spill Prevention and Response Procedures

- 1. Describe the standard operating procedures to <u>reduce</u> spills
  - Sealing drums, buckets and jugs;
  - Training employees proper fueling procedures;
  - Proper storage or placement of significant materials away from drainage ways or bodies of water; and
  - Properly handling waste material or fluids from all maintenance and repair work





#### Spill Prevention and Response Procedures

- 2. Describe the standard operating procedures implemented after a spill occurs.
  - Methods and tools used to
    - o Contain
    - o Cleanup
    - o Dispose
  - Spill response hierarchy and associated telephone
     (i.e., foreman → superintendent → local emergency response → ND Department of Health → US Environmental Protection Agency)





#### Reportable Spills

- Reportable Spills are those which:
  - Threaten or are in a position to threaten waters of the state, such as surface and ground water;
  - Cause immediate danger to human health or safety;
  - Cause harm or threaten to harm wildlife or aquatic life;
  - Oil spills which will not impact waters of the state, but exceed 10 gallons; and
  - Releases in excess of reportable quantities under Section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4)

#### **Definitions**

- CFR
  - Code of Federal Regulations
- CERCLA
  - Comprehensive Environmental Response, Compensation, and Liability Act
- 40 CFR 110
  - Discharge of Oil
- 40 CFR 117
  - Determination of Reportable Quantities for Hazardous Substances
- 40 CFR 302
  - Designation, Reportable Quantities, and Notification

#### Post Construction Controls

- List all post construction controls that have been or will be designed into the project, or will be used to control or treat storm water runoff after the project is completed.
  - Ponds
  - Wetlands
  - Infiltration Devices
  - Filter Devices
  - Channels and Swales
  - Oil and Grit Separators
  - Specific Pollutant Treatment Devices
  - Storage Tunnels
  - Treatment Trains
  - Etc.
- Include the design of the control.
- If there are no post construction controls, use "NOT APPLICABLE".



#### Procedures for Site Inspection and Maintenance

#### 1. Inspection Procedures

- Responsible individual(s)
- Inspection frequency
- Method of recording inspections

#### 2. Maintenance Procedures

- Response to deficiencies
- Responsible individual(s)
- Maintenance frequency
- Method of recording maintenance activity
- Responsible individual(s) MUST be familiar with the permit conditions, and with the proper installation and operation of the control measures.
- Inspection frequency may differ depending on site conditions; the inspection frequency requirements are outlined in Part III.A



#### Methods to Reduce Sediment Tracking

- Describe BMPs used to reduce the amount of sediment deposited onto paved roadways (or surfaces) by vehicles and equipment.
  - Designated area for employee parking
  - Parking on grassed, graveled or paved surfaces
  - Prohibiting vehicles or equipment from entering when muddy conditions exist
  - Removing mud from tires before leaving the site
  - Using a designated exit that is cleaned often



# Methods for Recovering Tracked Sediment

- Methods used to remove deposited sediment from paved surfaces
  - Loaders
  - Shovels
  - Brooms
  - Street Sweepers
- The removal frequency
  - The frequency may differ between the permit and local ordinances
  - Appendix 1 of NDR10-0000: "Accumulation of tracked sediment must be removed from all offsite paved surfaces within 48 hours, or if applicable, within a shorter time specified by local authorities"
  - Remove by the end of the day, or
  - Within 24 hours

#### Recovering Sediment from ESC Devices

- Describe the methods used to determine when an erosion or sediment control requires cleaning or maintenance
- Describe what methods will be used to clean and/or maintain the control to allow it to function properly





#### Winter Stabilization Practices that will be Utilized

Describe all BMPs that will be utilized to stabilize the site before snowfall and frozen ground conditions

- Indicate areas where cover crop will be planted and/or where dormant seeding will take place, and indicate what conditions must exist to allow each;
- What ESCs will be installed to prepare for spring runoff, and what conditions must exist;
- What ESCs must be removed or dismantled due to a public safety issue or local ordinance, and when they will be replaced or reassembled before spring runoff occurs;
  - Creating flooding conditions
  - Personal injury issues
  - Snowmobile traffic issues
  - Creating drifting conditions
  - Etc.
- Some local authorities require, by ordinance, that certain controls be removed during a certain time of year.

# Significant Materials

- List each significant material that will be stored on site.
- Indicate:
  - 1. Maximum quantity that can be on site
  - 2. Disposal methods for waste material (recycling, land application, burning, etc.)
  - 3. Disposal method for all material contaminated by a spill (recycling, land application, burning, etc.)

4. Pollution prevention measures used to prevent and/or capture any spill or leaks (employee training, covering containers, containment areas)

# Significant Material

Any material that has the potential to be carried off-site by storm water runoff.

- Liquids
- Powders
- Dust Granules
- Soil and Other Sediments
- Building Material
- Debris
- Hazardous substances designated under Section 101(14) of CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)
- Chemicals that must be reported pursuant of Section 313 of Title III of SARA (Superfund Amendments and Reauthorization Act)
- Waste Products
  - Ashes
  - Slag
  - Sludges

# Significant Material

- Materials may include, but are not limited to:
  - Soil
  - Diesel fuel
  - Gasoline
  - Kerosene
  - Oils
  - Grease
  - Anti-freeze/coolant
  - Cleaning solvent
  - Asphalt
  - Cement mix
  - Concrete wash water

- Mortar
- Curing compounds
- Admixtures
- Wastewater from construction
- Glues, adhesives
- Paints
- Wood preservatives
- Joint compound, wall and ceiling texture
- Gypsum board
- Pesticides
- Permanent seeding fertilizer

#### **Additional Owners and Operators**

- Signed by any additional:
  - Partners;
  - General Contractors;
  - Subcontractors;
  - Utility Companies; or
  - Other individuals involved with the site
- Upon signing, the additional owner or operator certifies that they have read, understand and will adhere to the SWPPP



# Site Inspection Record

The minimum amount of information that must be reviewed during a site inspection

- Time and date
- Name of inspector
- Amount and duration of precipitation event
- Observations noted during the inspection
  - Erosion
  - Sediment accumulations
  - Spills
  - SWPPP related maintenance
  - Remediation
  - ESC maintenance
  - Any other item that would result in non-compliance with NDR10-0000
- Actions taken to bring the site into compliance with NDR10-0000

#### **Records Revision**

- Record all revisions made to the SWPPP or Site Map
  - Error in paperwork;
  - Change to BMPs; or
  - Removal, addition or adjustment of ESCs
- Must include
  - The item revised;
  - The revision made;
  - Date of revision; and
  - Initials of responsible individual making the revision.

# Finally

The Storm Water Pollution Prevention Plan is a living document and should closely mirror actual site conditions!!

# Questions?

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